

ABSTRACT OF THE DISCLOSURE

A system for establishing fluid communication between a floating body and a wellhead on the seafloor includes a rigid, self-tensioning riser for fluidly connecting the floating body and the wellhead. The riser defines a major axis extending from the floating body to the wellhead. The riser is formed with a series of pre-formed curves that absorb and release energy in response to the heave and surge of the floating-body by flexing in a direction essentially parallel to the major axis. The series of curves may be in a single plane (e.g., sinusoidal), or in multiple planes (e.g., helical).

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